

DRAFT AGENDA – Per 7/15/10
Symposium on Chemical Mechanical Planarization
August 8-11, 2010
Crown Plaza Resort

Sunday, August 8:

- 12:00 - 5:00 P.M. Hotel Check-in and CAMP Registration
- 5:30 - 7:30 P.M. Cocktail Reception being held in Adirondack Great Room, (No formal dinner provided)

Monday, August 9:

- 7:00 - 8:00 A.M. Breakfast – MacKenzie's

MEETING HELD IN GRAND VIEW B

- 8:10 A.M. **S.V. Babu: Opening Remarks**

Session I

- 8:15 A.M. Use of CMP in Device Integration
-- Chris Hobbs, Manager of Non-Planar Integration with Sematech, Albany
- 8:40 A.M. A New Design of Serpentine-Comb Resistors for Developing and Monitoring the Interconnect CMP Processes that Enable Low Temperature Metal Gate-Last (MGL) CMOS -- Tricia Burroughs and Joseph Piccirillo, Albany College of Nanoscience and Engineering
- 9:05 A.M. The ABC's of CMP for DWB and SOI
-- Rob Rhoades, Entrepix
- 9:30 A.M. Controlling the Polish Rate Selectivity in Silicon Dioxide and Silicon Nitride CMP -- J. W. Nalaskowski, **L. Hupka**, M. F. Lofaro, D.Koli, D.Penigalapati, M. Krishnan, IBM and M. Noda, T. Yamanaka, T. Konno, L. Charns JSR Corporation, and JSR Micro
- 9.55 A.M. Coffee Break

Session II

- 10:25 A.M. Effect of CMP Consumables on Scratches Formation
-- Jin-Goo Park, Hanyang University
- 10:50 A.M. Study of Pad Surface Optimization to Reduce CMP Scratches
-- Tae Sung Kim, Sungkyunkwan University & SSIT (SAMSUNG Semiconductor Institute of Technology)
- 11:15 A.M. An Evaluation of Generated Particles during CMP Processing for its Effects on Wafer Polishing -- Ji Chul Yang, Samsung and Sungkyunkwan University & SSIT (SAMSUNG Semiconductor Institute of Technology)
- 11:40 A.M. Study of Dendrite Defects in 45nm BEOL CMP Processes
-- Anita Natarajan, IBM

12:05 P.M. Lunch – MacKenzie's

Monday, August 9 continued:

Session III

- 3:45 P.M. Characterization and Modeling of Pad Asperity Response in CMP – New Results
-- Duane Boning, MIT
- 4:10 P.M. Tribological, Thermal, & Kinetic Characterization of 300-mm Copper CMP Process
-- Yun Zhuang, University of Arizona
- 4:35 P.M. Fabrication of 80 Electrodes Embedding Micro Channel and Tomographic
Concentration Measurement in Liquid Particle Flow
-- Masahiro Takei, Nihon University
- 5:00 P.M. Science in Porosity Engineering of Low-k Dielectrics Using Supercritical Carbon
Dioxide---Pore Characterization and Pore Cleaning
-- Eiichi Kondoh, University of Yamanashi
- 5:25 – 7:00 P.M. Poster Session/ Open Bar – Grand View A
- 7:00 P.M. Dinner – Olympic Room
- After Dinner Speaker: "From Contract to Collaboration - Delivering a New
Approach to Foundry" -- Geoff Akiki, Director Abu Dhabi, Site Development, Global
Foundries

Tuesday, August 10:

7:00 - 8:00 A.M. Breakfast – MacKenzie's

Session IV

- 8:10 A.M. Enabling Solutions for 22 nm node (How to survive Ice Age)
-- Manabu Tsujimura, CTO, Ebara Corporation
- 8:40 A.M. CMP Pad Characterization for CMP Mechanism
-- Hiroyuki Tano, Yokkaichi Research Center, JSR Corporation
- 9:05 A.M. Maximizing Performance and Cost-of-ownership Benefits By A System-level
Optimization in Chemical-Mechanical Planarization"
-- Fred Sun, Cabot Microelectronics Corporation
- 9:30 A.M. An Attempt on Conditioned Polishing Pad Surface Evaluation with FFT Analysis
-- Keiichi Kimura, Kyushu Institute University
- 9:55 A.M. Coffee Break

Session V

- 10:25 A.M. Investigations of CMP Conditioner Diamond Shape Effects on Oxide and Copper
Wafer Removal Rates -- Taewook Hwang, Tony Wu, Rama Vedantham Saint-
Gobain Abrasives
- 10:50 A.M. Overview of Process Control in CMP
-- Jimin Zhang, AMAT

Tuesday, August 10, continued:

- 11:15 A.M. CMP End-pointing for ILD Thickness Control: Practices and Challenges
-- Wei-tsu Tseng, IBM
- 11:40 A.M. CMP Slurries for 3D TSV
-- Bastian Noller, BASF
- 12:05 P.M. Lunch – MacKenzie's

Session VI

- 3:45 P.M. Study of the Sacrificial Polymer for Chemical Mechanical Planarization Process
-- Jongwon Lee, Samsung
- 4:10 P.M. Experimental Analysis of Friction Change in Chemical Mechanical Polishing of Bare Silicon Wafers -- Haedo Jeong^{*}, Domin Moon^{**}, Hoyoung Kim^{***} and Jaehong Park^{****}; ^{*} Pusan National University, Korea, ^{**} R&D Center, Siltron, Korea ^{***} G&P Technology, Korea and ^{****} Nitta Haas Corporation, Japan
- 4:35 P.M. A Systematic Approach to the Development of Advanced Post Copper CMP Clean
Solutions -- Andreas Klipp, BASF
- 5:00 P.M. Challenges and New Developments in the Post-CMP Cleaning Technology
-- Rakesh Singh, Entegris
- 6:00 - 7:00 P.M. Reception at Lake Placid Club
- 7:00 P.M. Dinner at Lake Placid Club

Wednesday, August 11:

- 7:00 - 8:00 A.M. Breakfast – MacKenzie's

Session VII

- 8:05 A.M. Galvanic Corrosion Issues Related to Copper/Barrier CMP via Inline Electrochemical Measurements -- Lieve Teugels, IMEC
- 8:30 A.M. Effect of Dissolved Gases on Sonoluminescence Signal from Deionized Water Irradiated with Megasonic Energy (Collaborative Work between University of Arizona and Prosys Megasonics) -- Srini Raghavan, University of Arizona
- 8:55 A.M. Substantial Slurry Savings on a Legacy CMP Polisher
-- L. Borucki, Y. Sampurno, A. Philipossian, Araca, Inc. R. McCoy, P. L. Enkersdorfer, R. Rhoades, Entrepix, Inc.
- 9:20 A.M. Ultrapure Colloidal Silica for CMP Applications
-- Deepak Mahulikar, Planar Solutions LLC, FujiFilm Electronic Materials USA
- 9:45 A.M. Coffee Break

Wednesday, August 13 Continued:

Session VIII

- 10:10 A.M. Experimental Study of Leveling Additives for Plated Cu and CMP Performance
-- James Kelly, IBM
- 10:35 A.M. CVD Cobalt Film Properties and Process Integration
-- Takeshi Nogami, IBM
- 11:00 AM Alumina Abrasives for Sapphire Substrate Polishing
-- David Merricks, Ferro
- 11:25A.M. Combinatorial Methods for PCMP Clean Development
-- Steve Bilodeau, ATMI
- 11:50 A.M. TBD (Global Foundries) or Clarkson
- 12:15 P.M. Closing Remarks, S.V. Babu, CAMP
- 12:30 P.M. Lunch - MacKenzie's